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# The High School Instructor

VOL. 2

SASKATOON, SASKATCHEWAN

No. 9.

\$2.00 a Year

25 Cents a Copy

**MAY, 1936**

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Published Monthly by

**Western Extension College Limited**

Educational Publishers

Saskatoon, Saskatchewan

Winnipeg, Manitoba

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**Western Extension College**  
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Standard Bldg., Saskatoon, Sask.

# The High School Instructor

VOL. II

SASKATOON, SASK., MAY 1936

No. 9

## EDITORIAL

### THE FRENCH PEACE PLAN

IN recent weeks the moves and counter moves made by European governments have been so frequent and astounding that the average world citizen wonders in bewilderment what world-shaking action by some European power will be the news tomorrow. A few weeks ago the fears of peace-loving citizens—and that includes the vast majority of mankind—were aroused by Chancellor Hitler's dramatic movement of troops into the demilitarized Rhineland. This was accompanied by proposals from Der Fuehrer looking towards permanent peace in Europe and eventual disarmament. Among other things he proposed a new treaty or series of treaties of non-aggression binding on the signatories for twenty-five years, and demilitarization of a zone to include a strip of French territory as well as the Rhineland.

The reaction in Britain, which seems burdened with the task of harmonizing the discordant elements in Europe, was regret at Germany's breach of faith in renouncing the Locarno treaty which had been freely negotiated and signed by German representatives. Moreover it is a matter of record that Germany was the proposer of the Locarno pact as a means of guaranteeing peace between France and herself. In spite of the regret, however, the British government has seen the necessity of taking Hitler at his word. Consequently conversations have been carried on to make explicit the German proposals. There is a tendency, however, in both Britain and France to distrust Hitler's promises for the future in view of his breach of past promises.

Now France makes her proposals which have tremendous implications. In a 13-page memorandum, France proposes what amounts to a virtual reorganization of the League of Nations. She proposes a kind of United States of Europe—an European League within the League of Nations—with permanent military and naval forces at its command to use against an aggressor nation. Such air, land, and sea forces would be contributed by the various members. This amounts to a reorganization of

the League on an European plane leaving the task of keeping the peace in Europe entirely to the European members of the League.

France's proposals would perpetuate for twenty-five years the territorial status quo in Europe, guaranteed by regional pacts of mutual assistance and completed by immediate gradual but accelerated military and economic disarmament. France's proposals and those of Germany contain the same essential factor, non-aggression pacts to be valid for twenty-five years. The memorandum concludes with the following questions and statements:

"Does Germany recognize as valid and without any reservations the territorial and political status of Europe as it is today? (This follows an enumeration of the most obvious points of friction—such as Memel, Danzig, and Austria).

"Does she admit that respect for this status shall be guaranteed by an agreement based on mutual assistance?

"Does the vital law of nations authorize unilateral violation of a pledged agreement?

"Is peace to be assured by collaboration of all for respect of the rights of each, or will the powers have every latitude to set forth in their own way, their private differences with states in good faith without being taken advantage of?

"No European government would be a party to the new accord without having first received a clear answer to these questions."

The most original element in the French proposal is the plan to establish an European commission within the League endowed with authority to impose its decisions on Europe. For example, by a two-thirds majority vote the commission would decide the limitation of armaments to be applied to each European power, and to enforce these decisions it would have a strong composite force of military and naval contingents.

Once peace and security are assured by these means, the memorandum

claims, an economic agreement among European countries could be negotiated, and it is specified that these agreements "can go as far as partial or total tariff union."

The hopeful thing about all this is that at a time when Europe is a veritable collection of dangerous explosives which threaten to bring destruction and suffering, the most dangerous of the explosive elements, France and Germany, are making concrete proposals for continued peace. It is well that they pause to talk. A generation ago, without the League, they would have drawn the sword and let the victor do the talking.

#### UNITED STATES AND BRITISH CO-OPERATION FOR PEACE

SIR ARTHUR SALTER, British economist, recently attracted attention in New York by an address on relations between Britain and the United States. The thesis of Sir Arthur's address was that by consultative co-operation the two great English-speaking commonwealths could preserve the peace of the world. This co-operation would entail no political alliance, but instead its aim would be to bring to bear for peace the moral pressure of the two commonwealths, whose territories encircle the earth and contain more than half its wealth and population.

After pointing out that speech and not race is the great unifying factor, he said:

"Between the English-speaking peoples there are no major and enduring causes of discord and every reason for increasing harmony. . . . We want the same kind of world, and are each content with our own share of it. We believe in the same fundamentals of government—democracy expressed through representative institutions and liberty rooted in the rule of law. We both believe that war is a destructive anachronism, and that the first and greatest of political objectives should be to eliminate it from the world system. . . .

"The best and most distinctive principle of conduct of the age of chivalry was expressed in the phrase, 'Noblesse oblige'—Nobility has its obligations. The best and most distinctive conception of our age is that wealth and power involve a corresponding responsibility for their use."

#### ARE THE NATIONS READY?

(From the *Christian Science Monitor*)

IN this year of our Lord, 1936, there are rumors of war. Men's hearts are filled with fear, their thoughts with hate, greed, ambition, resentment. A remedy was presented to men, by Him whose advent dated the Christian Era, whereby to eliminate from hearts and hearths the horrors of war. The remedy was so certain, so devastating to war, that, except by the few, it went uncomprehended. Yet it was set forth by the most practical of men. He went to the heart of the problem and said, "When ye shall hear of wars and rumors of wars, be ye not troubled." He also spoke much of love and of service one to another.

It is clear that the root of war and its rumors is fear—suspicion; and that peace is to be found only in that which destroys fear. It is fear that underlies greed, ambition, aggression.

While it seems that Christendom has not made the most of the Nazarene's clearly revealed remedy for war, yet here and there, out of the welter of conversations and conferences a word is heard which has the right sound. Such a word was uttered recently by Prime Minister Stanley Baldwin, when he said, in effect, that the hope for peace lies in friendliness, and that "there can never be peace in Europe so long as suspicion continues between France and Germany." These words would as well apply, in their essence, to all other nations. The call for friendliness as a remedy for suspicion—fear—savors of the remedy presented to a war-minded world in the first century.

Rulers profess themselves in favor of peace, and proceed to acts which tend toward war. Men loathe the horrid effects of war, but neglect to practice the friendliness which would help to make war impossible. So today aggressive acts and counter-acts, treaties and treaty violations, "collective security," and military alliances occupy men's thoughts. Means to peace are being assiduously sought; yet peace, through friendliness, is entirely possible, the friendliness which breaks through the mesmerism of fear and suspicion, and finds the way to justice and security.

It is not enough to leave to statesmen the whole burden of bringing to bear upon the present problems the necessary solvent of friendliness. Public opinion is formed of the thoughts of individuals the world over. Each individual who holds within his own thinking the friendliness which disarms fear will aid statesmen in making right decisions.



# Grade IX Literature

## AS YOU LIKE IT

### Act V

**Scene 1.** The marriage of Touchstone and Audrey by the irresponsible vicar Sir Oliver Martext had been prevented by the interposition of Jaques. Audrey seems to have been put out but Touchstone counsels patience.

Now a rival appears upon the scene, the simple yokel, William. He is readily disposed of by Touchstone. This encounter still proves on the modern stage one of the best bits of fun in dramatic literature.

**Scene 2.** Oliver has told Orlando of his engagement to Aliena. Orlando seems taken aback by the suddenness of it, but is it more sudden than the mutual love between himself and Rosalind? In spite of Orlando's surprise, it is not surprising to us, for is not the spirit of the play: "Who ever loved that loved not at first sight?" On this principle Rosalind and Orlando loved, Phebe became infatuated with Ganymede (Rosalind), and now Oliver is engaged to Aliena unaware of her noble birth.

In arranging to have the Duke and all his followers at the wedding, Orlando is not aware that he is laying the scene for his own betrothal.

Orlando breaks the news of Oliver's engagement to Ganymede and tells "him" he cannot go on pretending courtship of Rosalind, whereupon Rosalind professes miraculous powers. She will bring Rosalind to him so that a double marriage can be performed. How does she explain her power?

Rosalind makes a promise to Phebe which she knows will make her marry Silvius. "He" (Ganymede) announces that if Orlando, Oliver, Silvius, and Phebe meet on the morrow all will be married, and all will get their desires.

**Scene 3.** This is a delightful scene between Touchstone, Audrey, and the pages. It is delightful for the beauty of the song. As Dr. Arne has arranged it, it is a quartette. It may be done, however, as a trio or as a duet. Note the appropriateness of its love sentiment to the circumstances of so many wooings being brought to a happy conclusion.

**Scene 4.** Orlando has reported to the Duke the claims of Ganymede as to "his" ability to make Rosalind appear. Ganymede enters and gets the Duke's confirmation of his willingness to have Rosalind marry Orlando. She makes Orlando, Silvius, and Phebe repeat their promises. What were the promises? Ganymede and Aliena go out. It is a matter of a change of costume. When they reappear it is as Rosalind and Celia. The Duke has begun to suspect the identity of Ganymede.

To give time for Rosalind and Celia to change costumes Shakespeare has arranged an encounter between Jaques and Touchstone in which Touchstone gives a sample of his wit. Note that Touchstone has arrived opportunely with Audrey to make up the sum of loving couples.

As the betrothals are made, Jaques de Bois brings news of the conversion of the usurping Duke and the restoration of Duke Ferdinand.

So all ends happily. All the characters are on the stage. Their costumes and the music make a beautiful finale.

### Questions on Act V

Answer each in a sentence or two oral or written.

1. How does Touchstone deal with Audrey's former suitor, William?
2. What makes Orlando unwilling to play a game of pretense any longer, with Ganymede for Rosalind?
3. By what power does Ganymede declare that "he" can bring Rosalind to the forest?
4. What promise does "he" make to Orlando and to Phebe?
5. How does Touchstone present Audrey to Jaques?
6. How does Touchstone prove to Jaques that he has been a courtier.
7. Once he nearly took part in a duel. What was the cause of the quarrel?
8. Why was the duel not fought?
9. What word does he consider the great peacemaker?
10. By what device does Rosalind make herself known to her father and to Orlando?
11. What news does Jaques de Bois bring of Duke Frederick?
12. Describe the happy ending of the play.
13. Learn by heart: V, III. "It was a lover and his lass".
14. What is meant by the following sayings: (a) It is meat and drink to me to see a clown; (b) An ill-favoured thing, but mine own; (c) Much virtue in "If"; (d) Good wine needs no bush?

### General Problems

1. "Upon the whole, *As You Like It* is the sweetest and happiest of Shakespeare's comedies." Describe the qualities which have made *As You Like It* as popular as it is. You might enlarge upon such things as:

(a) The excellent presentation of character. Illustrate by reference to Rosalind's cheerful nature, Celia's love and devotion, Orlando's gentility, Adam's satisfaction with a life of conscientious service and action, Touchstone's merry humour, Jaques's seriousness of mind, the merry exiles, and the happy Duke.

(b) The atmosphere of *As You Like It*. Tell of the places where the characters do the acts and experience the incidents which form the plot—the delights of the forest of Arden—the fairy-like character of it—its fantastic dreaminess.

(c) The beauty of the lines—their imagery—their music—their simplicity. Illustrate with a few well-chosen passages such as:

- (1) I did not then entreat to have her stay,  
It was your pleasure, and your own remorse;  
I was too young that time to value her,  
But now I know her. If she be a traitor,  
Why so am I: we still have slept together,  
Rose at an instant, learned, played, eat together;  
And wheresoe'er we went, like Juno's swans,  
Still we went compled and and inseparable. (*Celia*)

- (2) Were it not better,  
Because that I am more than common tall,  
That I did suit me all points like a man?  
A gallant curtle-axe upon my thigh,  
A boar-spear in my hand, and (in my heart  
Lie there what hidden woman's fear there will)  
We'll have a swashing and a martial outside;  
As many other mannish cowards have,  
That do outface it with their semblances.
- (3) Sweet are the uses of adversity;  
Which, like the toad, ugly and venomous,  
Wears yet a precious jewel in his head;  
And this our life, exempt from public haunt,  
Finds tongues in trees, books in the running brooks,  
Sermons in stones, and good in everything.
- (4) The lord's description of the wounded deer.  
"Under an oak, whose antique root peeps out  
Upon the brook that brawls along this wood."

Almost every line of the play, whether of prose or poetry is melodious.

2. Tell why the various characters sought refuge in the forest of Arden. Make particular reference to Duke Senior, Jaques, the lords, Orlando, Rosalind, and Celia. Show how happiness comes to them in the forest, where men "fleet the time carelessly, as they did in the golden world". Are any of those who dwell there, including native dwellers, untouched by its peace and beauty? Elaborate. The "golden world" refers to the golden age of Greek mythology. Obtain a collection of Greek myths such as those of Gayley, Kingsley, or Hawthorne, and learn something of this golden age which the Greeks looked back upon.

3. We use the word "comedy" in many senses. We speak of "romantic comedy", the "comedy of manners", a "comedy of errors", "farfical comedy", "slapstick comedy", and so on. What is the meaning of these various terms? We speak in general terms of *As You Like It* as a comedy. The dramatic comedy aims at teaching a lesson, or lessons of life, by pointing out how to live. Dramatic tragedy teaches the same lessons in a negative way by showing the terrible results of wrong courses. In a comedy like *As You Like It* the play begins with unhappy situations. Through rightful attitudes and wise choices and decisions on the part of those wronged, right eventually prevails and happiness is re-established. In this general comedy, however, there are frequently mingled various particular forms of comedy such as those enumerated above. What incidents in *As You Like It* would you consider *romantic comedy*? What are comedy of manners? Comedy of errors? Farfical comedy? (Farce deals with the follies of people). Describe fully each incident listed under each of the above headings.

4. A pastoral tells of shepherds or country folk, and of their rural occupations, or of life lived as rustics live. There are two kinds of pastoral. The first is the pastoral idyll in which the rural life is the poet's dream, where shepherds and shepherdesses sing their songs of love and twin garlands while their flocks feed in sunny meadows or on verdant mountain slopes. Such pastorals are typical of classical literature and

are to be found in English literature in Spenser's *Shepherd's Calendar* and Milton's *Lycidas*.

The second form of pastoral sets out to show rural folk in their real lives, their joys, their sorrows, their work, their play, their strength, and their weakness. Their environment is described as it really is. There are storms as well as sunshine. In this form of pastoral we are led to see a beauty in adversity, to feel a pleasure in pain, as well as to appreciate the great gift of pleasant aspects of life near nature. Such are the pastorals of Wordsworth, and, in our own age, of Wilfrid Wilson Gibson. You are familiar with the poem *Michael* by Wordsworth in which the above pastoral characteristics are emphasized.

*As You Like It* is a pastoral play. Describe its pastoral features under the following headings:

- (a) The life in the forest.
- (b) Rosalind and Aliena in their shepherd life.
- (c) Corin, Silvius, and Phebe.
- (d) Touchstone and Audrey and the shepherd life.
- (e) The rural scene.

5. Shakespeare had no particular name for this play. His attitude was that you might take from it any lesson you could, and you could think of it under any name you pleased. The story of the play was obtained from a prose romance by Thomas Lodge. In his dedication Lodge says: "If you like it, so; and yet I will be yours in duty, if you will be mine in favour". There can be little doubt that Lodge's phrase suggested to Shakespeare the title of his play. Look at the list of Shakespeare's plays and note any others with similar uniqueness of title.

6. State the scenes in the play where music occurs. Indicate how the songs are appropriate to the spirit of the occasion. The music of the song *It Was a Lover and His Lass* used in Shakespeare's own day has survived. It was composed by Thomas Morley, a famous musician of Shakespeare's day. A good setting for each of the songs of the play are those written by Dr. Arne. They can be obtained at small cost from Samuel French, Ltd., Toronto.

7. The fortunes of the hero and heroine of a comedy are not happy throughout the play. In the first sentence Orlando speaks of his "sadness"; and Celia's first words to Rosalind are: "I pray thee, Rosalind, sweet my coz, be merry". What are the causes of grief of these two? Show how one stroke of ill-luck follows another for both of them until they take refuge in the forest of Arden, where they find happiness.

8. In *As You Like It* there is a main plot and a sub-plot. Distinguish the two and show how they are linked together.

9. The Shakespearean drama is always constructed in five acts. The action rises in the first two acts, reaches its climax in the third, and falls to a conclusion in the last two. In a comedy like the one we are studying these essential parts are called the *situation*, the *climax*, and the *solution* or denouement. During the situation there is a gradual complication of circumstances.

Show how the chief personages are introduced in *As You Like It*, indicating who they are, what they are like, and in which circumstances suggest a story to come. Briefly describe how the story unfolds itself. Where does the climax come? Place it as exactly as you can? How is the solution brought about?

10. In older days every great household had its Fool. He was a much privileged person, who could exercise his wit and play practical jokes with impunity. Jaques declares, in Act II, Scene VII, that he envies him his freedom of criticism. He need not fear retaliation, says Jaques, for a man who shows himself sensitive to the gibes of a Fool himself appears foolish. However, if he went too far he was sometimes soundly thrashed. Celia threatens Touchstone: "You'll be whipped for taxation one of these days." In a number of Shakespeare's plays reference is made to the whipping of the Fool—in *King Lear*, and in *Twelfth Night*.

Touchstone is the wisest of Shakespeare's Fools. Much of the stuff which made their fun now loses its point and pith. It is in their individual wit and wisdom that Shakespeare's fools give pleasure.

Illustrate Touchstone's abilities as a jester by reference to what is said above as he shows that skill in various parts of the play.

11. The "seven ages" speech of Jaques is one of the most popular speeches that Shakespeare wrote. It is perhaps the first you memorized. Nearly every person of fair education knows it. It is interesting as you read play after play of Shakespeare to notice the passages which have had the greatest popular appeal, and to inquire why they should have caught the imagination. Write an account of the "seven ages" speech in such a way as to account for its great popularity.

12. Shakespeare has given us many types of women and sometimes one type is admired and sometimes another. Ruskin says Shakespeare's women approach much nearer the heroic ideal than his men. Of all his women, Rosalind is most pleasing. The Rosalind spirit, its light-heartedness, impulsiveness, affection, and wit, never goes out of date. Many great actresses since Shakespeare's day have delighted audiences with interpretations of Rosalind. Some critics do not like some of the finest of Shakespeare's women, but it is difficult to imagine any disliking Rosalind. She embodies the freshness and gaiety of spring. Write an appreciation of her character, and by showing her in certain situations emphasize this quality of enduring delightfulness.

13. Describe the following minor characters in about ten or twelve lines for each: Silvius, Phebe, William, Audrey, Corin, Frederick, Adam.

**Note.**—Our last instalment will deal with the problems of the play from the point of view of character, and will perhaps suggest further general problems.

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**The High School Instructor?**



# Grade IX Arithmetic

## Debentures

If a city wants to pave a street or a school district wants to build a school, it will issue debentures to cover the expenditure. Thus a debenture is an instrument or document issued by a government or corporation in which it promises to pay the person who buys it the face value of the debenture at a future date, with interest to be paid at regular intervals at a specified rate. If the debenture issue is to defray the expenses connected with the building of a school, the debentures will likely be made to mature in 30 years. When we say that the debentures mature in 30 years we mean that the school district is prepared to redeem the debentures at their face value at the end of 30 years. In the meantime they will pay annually or semi-annually if it is so agreed, interest at a rate usually ranging from 3% to 6%.

Let us suppose that a school district wants to build and equip a \$20,000 school. They will issue 40 debentures, each with a face value of \$500. Let us assume that they agree to pay annually interest at the rate of 5% per annum. Each of these debentures will earn annually interest amounting to \$25. The total interest on the 40 debentures will be \$1000. The school district must, therefore, raise by taxation each year \$1000 to pay the interest on the debentures. The school district must, too, keep in mind that in 30 years they must be prepared to pay off the face value of these debentures amounting to \$20,000. It would not do to raise the \$20,000 in the thirtieth year, for then the people who lived in the school district that year would be paying the whole of the cost of the school. So beginning with the first year the debentures are issued the school district will set up a *sinking fund*, into which will be paid each year a sum of money which, with the interest earned, will amount in 30 years to \$20,000. As \$356 a year deposited in the sinking fund will at 4%—the rate which, by statute, the fund must earn—amount in 30 years to \$20,000, the district will, therefore, raise by taxation each year to defray the expenses of the building and equipping of the school a sum equal to \$1356.

When the debenture is issued there will be attached 30 coupons, each requiring the district to pay \$25 interest. See the form of the coupon on page 200 of the text. Each year the holder of the debenture will forward to the bank in the school district one of these coupons. The district will authorize the bank to pay the coupons as they are presented.

We sometimes use the word *bond* instead of debenture. The difference between the two terms is very slight and refers only to the assets which form the security on which the bond or debenture is issued.

After a bond or debenture has been issued its value will rise or fall depending upon the financial condition of the district that made the issue. Thus the bonds of the province of Manitoba at the present time sell at a higher figure than the bonds of the province of Saskatchewan, the reason being that Manitoba has balanced its budget, while Saskatchewan has not.

When a bond sells at 94 it means that the holder of that bond is

willing to dispose of it at the rate of \$94 for every \$100 of face value. Thus the holder of a \$500 bond would dispose of it for  $94 \times 5 = \$470$ . When a bond sells for less than \$100, it is said to be selling at a *discount*. If it sells for over \$100, say at 105, it is said to be selling at a *premium*. The thing to remember, however, is that no matter what the bond may be selling for in the open market, the interest it pays from year to year is the same. Thus a 5% bond will pay yearly \$5 interest for every \$100 of face value. Thus, if you buy a \$100 bond paying interest at 5% at 94, it means that on cashing a coupon, you get \$25 on an investment of \$470, or an interest yield of  $25/470 \times 100 = 5.32\%$ .

When a bond or debenture is issued the dates on which interest payments are to be made are set out in the document. If you buy a bond or debenture in between those dates you must pay as a part of the cost of such bond or debenture the interest that has accrued *from the last interest date to the date of purchase*. If the bonds are registered you must also pay a brokerage charge of 30 cents per \$100.

Suppose that on September 13th I buy two \$1000 bonds at 107 bearing interest at 6%, the interest dates being January 2nd, and July 2nd, and the brokerage 30 cents per \$100, what will be the total cost?

Market price of bond =  $107 \times 20 = \$2140$

Accrued interest from July 2nd, to September 13th (73 days) at 6% =  $2000 \times 73/365 \times 6/100 = \$24$

Brokerage =  $.30 \times 20 = \$6$

Total cost =  $2140 + 24 + 6 = \$2170$

What would the current interest yield be on one of the above bonds?

Purchase price = \$1070

Interest = \$60

Interest yield =  $60/1070 \times 100 = 5.14\%$

You may wonder why an investor would buy a bond when he had to pay \$107 for every \$100 of face value. The answer is that the investment pays him 5.14% interest on his money, which is probably as large a rate as he can receive at the time of purchase having in mind the security of his investment over a period of years.

Now do questions 1-7, page 202.

### Exchange

When we wish to pay a sum of money to someone living in another city in Canada, the institution that makes it possible for us to make this payment charges us a sum of money to cover certain expenses involved. The sum of money charged is called *exchange*.

The institutions that make it possible for us to discharge a debt or an obligation in another city are the post office, bank, telegraph company, and express company. Thus by paying a sum of money into one of these institutions in one part of the country, it will undertake to pay out from one of its branches in another part of the country an equivalent sum. The amount charged for providing this convenience is arrived at in different ways. The post office charges 5 cents on any money order up to \$5, 7 cents on orders between \$5 and \$10, etc., the rates being arbitrary amounts on orders for sums between certain limits. The banks, on the other hand, charge a percentage of the face value of the draft or cheque, with a minimum charge, usually of 15 cents. The percentage charged varies from  $1/8\%$  to  $1/4\%$ . See page 204 for the method of

determining the rate charged by a telegraph company. In addition to the exchange there is the cost of the Dominion of Canada revenue stamp which is 3 cents on all amounts up to and including \$100 and 6 cents for amounts over \$100.

Suppose I want to send \$80 to Halifax. If I send it by a post office money order it will cost me 25 cents (see table page 203) plus 3 cents for the revenue stamp. If I send it by a bank which charges  $1/4\%$ , the exchange will be  $1/400 \times 80 = 20$  cents plus 3 cents for the revenue stamp. If I send it by telegraph, the cost of a 10-word message plus  $1\%$  of \$80 plus 5 cents, namely,  $240 + .80 + .05 = 3.25$ . Telegraph companies are taxed 5 cents on every telegram they send.

Do questions 1-7, pages 205 and 206.

### Drafts

Note the two kinds of drafts in common use. First, there is the *bank draft*. This draft is merely the way, mentioned above, that the bank has of sending at someone's request a sum of money to someone else. This is merely an order issued by one bank directing a branch of the bank somewhere else to pay someone a sum of money. This draft performs the same functions as a post office or telegraphic money order. Next, there is the *commercial draft*. This draft does not originate with the bank. If A in Regina owes B in Saskatoon \$80, B may draw a draft on A in Regina, requesting him to pay into a bank in Regina, either at sight or so many days after date, the \$80 owing. B would then give this draft to his bank in Saskatoon to collect. The bank in Saskatoon would send it to a branch of the same bank in Regina. This branch would send out a messenger to A's place of business or residence. If A is satisfied that he owes the money and can pay it on the date requested in the draft, he will write "accepted" with the date of acceptance across the face of the draft. The draft, which is now called an "acceptance" becomes a promissory note, and can be dealt with in the same way as a promissory note. Thus if B drew the draft on Jan. 1, 1936, at 60 days, and A accepted the draft on Jan. 10th, the date of maturity of the draft will be 63 days after Jan. 1st, namely, March 4th. If the draft is discounted at  $7\%$  on Jan. 10th and the bank charges  $1/10\%$  for collection what will be the proceeds?

Number of days from Jan. 10th to March 4th = 54

$\therefore$  discount =  $80 \times 54/365 \times 7/100 = \$8.28$

Collection charge =  $1/1000 \times 80 = .80$

Proceeds =  $80 - 8.28 - .80 = \$70.92$

Now do questions 1-12, page 210.

### Mensuration

Before taking up the work prescribed for Grade IX mensuration, namely, the cone, sphere, prism, and pyramid, it would be advisable to review the work of the earlier Grades in mensuration.

In mensuration we deal with linear, square, and cubic measurements. We use linear measurement when we find the lengths of lines, square measurement when we find the areas of surfaces, and cubic measurement when we find the volumes of solids or the cubical contents of receptacles.

There are two linear measurements a knowledge of which will be of value to the student. They are: (1) *The length of the hypotenuse of a*

right-angled triangle is equal to the square root of the sum of the squares on the other two sides. Thus if the sides are  $a$  and  $b$ , the hypotenuse is  $\sqrt{a^2+b^2}$ . If the hypotenuse is  $c$  then  $b=\sqrt{c^2-a^2}$  and  $a=\sqrt{c^2-b^2}$ . (2) *The circumference of a circle* is  $2\pi r$  where  $\pi$  is equal to  $22/7$  and  $r$  is the radius of the circle.

The square measurements we should know are: (1) *The area of a rectangle* is equal to the number of units in the length multiplied by the number of units in the width. (2) *The area of a triangle* is one-half the base times the altitude. If the area and base are known, then the altitude is found by taking half the base and dividing it into the area. If the area and altitude are known, then the base is found by dividing the altitude into the area and doubling the result. (3) *The area of a parallelogram* is the number of units in the length multiplied by the number of units in the perpendicular height. (4) *The area of a circle* is  $\pi r^2$ , that is, the radius squared times  $22/7$ . (5) *The area of a sector of a circle* is one-half the arc times the radius. (6) *The area of the curved surface of a cylinder* is  $2\pi rh$ , where  $h$  is the height of the cylinder.

The cubic measurements we should know are: (1) *The volume of a rectangular solid* or the cubical contents of a rectangular receptacle is the area of the base times the height. (2) *The volume of a cylinder* is  $\pi r^2 h$ . We note that the base of a cylinder is a circle. Hence the volume of a cylinder is the area of its base times its height.

The student should do a few questions in each set of exercises from page 217 to 235. He should also do exercises 1-20, page 248 on the volume of a cylinder.

The mensuration for Grade IX will be taken up in the next issue of the magazine.

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# Grade X Literature

## JULIUS CAESAR: On Thinking It Over

Now that we have made a careful study of the text of the play, let us consider some general aspects of it.

### The Structure of the Play

All Shakespearean plays are written in five acts. They follow a plan almost rigid in its mechanical arrangements. The situations are developed and the problems faced by the central characters are built up. This weaving of the tangled skein, as it were, takes place in the first two acts. In the first half of the third act the action reaches its peak of interest. Events take place which are the result of plans and decisions made by the central characters. In the middle of the third act there is a turning point or crisis, and the rest of the play is devoted to the unravelling of the plot. Thus there is (1) rising action, (2) crisis, (3) falling action.

Let us illustrate this by reference to the two chief forms of Shakespearean drama—comedy and tragedy. In comedy we begin with unhappy circumstances such as the estrangement that existed between Orlando and Oliver, Duke Ferdinand and Duke Frederick. Then things occur to change the fortunes of the wronged, such as the circumstances of Oliver's rescue by Orlando. The last half of the play leads to happiness for all of worth. This happy ending in comedy is called the denouement (unravelling). In tragedy we begin with a generally great and good person, but with some frailty of character. He makes unwise decisions or choices. For a time his plans are apparently successful, but there comes the turning point. His fortunes decline, and his life ends in disaster. Always death as a result of his errors is at the end of the road. In dramatic tragedy this outcome is called the catastrophe.

In the play *Julius Caesar* the first two acts and half the third deal with the conspiracy against Caesar—its formation and consummation. The tragedy centers around Brutus, a great and good man, who is led by the shrewd Cassius into the mistaken belief that he can right one wrong by committing another, that he can save the republic by murder. So he joins the conspiracy. All their plans are successful. They succeed in killing Caesar and in retaining the goodwill of the people. But here Antony enters. Brutus had made the mistake of underestimating his influence. In a very eloquent and clever address, he succeeds in turning the Roman public opinion strongly against the conspirators. The fortunes of the latter immediately decline and we reach the exact climax of the play when we are told that "Brutus and Cassius have ridden like madmen through the gates of Rome". Nemesis follows them and they keep up a losing struggle until the disastrous battle of Philippi closes the book of their lives. In the first half, too, Caesar appears as a weakling, arrogant, boastful, and superstitious with only hints of his true greatness. After his death, Antony, who had been described as a reveller, proves a "shrewd contriver" and in the last half of the play Caesar, though dead, appears in his true greatness. His spirit "ranges for re-



venge"; he is "the ruins of the noblest man that ever lived in the tide of times"; even Brutus describes him as the "foremost man of all this world."

### Dramatic Devices

Besides the interest inherent in the story, the dramatist makes use of other devices commonly used to heighten the interest of the audience. These devices are not essential to the story, but they have the effect of putting the audience in a frame of mind, a mood, which will make the subsequent action more impressive. These devices are:

(a) *Suspense*. Note the heightening of interest in various parts of the play by this means. The conspiracy was formed and definite plans were laid for carrying out the assassination. But Shakespeare keeps the audience in suspense as to whether something will happen to prevent the conspirators from carrying out their plans. He suggests that information concerning the conspiracy has leaked out. Artemidorus is informed and seeks to warn Caesar. Will he be warned? Caesar is superstitious. Will he listen to the warning of the soothsayer? Calpurnia seeks to keep him at home. Will he go to the senate house? The augurers also have advised against it. Portia is fearful and agitated. The audience fears with her for the success of Brutus. Again we have the suspense of the discussion regarding the march to Philippi. Will Brutus prove right or wrong?

(b) *The place of prophecy*. Modern dramatists very frequently make use of an element which was an essential part of the ancient classical drama. Interest was supplied by revelations or prophecies known as oracles. In the play *Julius Caesar* there are two main prophecies which are proven true by subsequent events. In the first half there is the warning or prophecy of the soothsayer when he bids Caesar "Beware the Ides of March", a warning which he repeated on the very day of Caesar's assassination. In the second half of the play Antony utters an ominous prophecy over Caesar's body. He prophesied civil war in which Caesar's spirit should revenge himself on the conspirators. Subsequent events prove this prophecy true.

(c) *The use of spectacular natural phenomena and the supernatural*. Audiences are readily impressed by anything out of the ordinary. All of us have experienced the effectiveness of devices used by modern producers of talking pictures. Howling tempests, crashes of thunder, weird sounds, dim lights, cobwebbed and gloomy surroundings are used to entrance the air of mystery in dramas involving mystery. Storms, turbulence in nature are effective in preparing the audience for a tragic event. Such natural phenomena and the supernatural suggest a mysterious and unseen power over which human beings have no control. Shakespeare has made good use of these devices in *Julius Caesar*. The night before the assassination of Caesar is the occasion of the worst storm in the memory of man. People are frightened, and although the apparent prodigies of the fearful night can be explained, yet to superstitious people like Casca they are portentous things. The storm is still in progress as Brutus paces his orchard as disturbed in mind as are the heavens. Imagine yourself in the audience listening to Brutus debating with himself regarding Caesar's death. As he utters his thoughts, as he talks with Portia, and the conspirators lay their dark plans, there are rollings of thunder and flashes of lightning. It should not be difficult for you to realize how much more deeply the seriousness of the scenes would be

impressed upon your mind. Again the scene at Caesar's house is set in a background of supernatural suggestions. The storm is still raging. There are direful reports of things seen by the watch. Calpurnia has had a dreadful dream of Caesar's status, "which, like a fountain with a hundred spouts, did run pure blood". The augurers, doing sacrifice, could not find a heart within the beast. Then, in the closing scenes of the play, we have the appearance of Caesar's ghost to Brutus in his tent, and we are told that it reappeared at Philippi. Cassius also suggests the supernatural in his reference to the ravens, crows, and kites, which form "a canopy most fatal under which their army lie ready to give up the ghost".

(d) *Nemesis*. The dramatist arranges that the good qualities of his heroes are rewarded, and that the errors or crimes are punished. Usually the reward or the punishment are suited to the virtue or crime. This we call *dramatic justice*. When retribution for wrong is a result of and in keeping with the wrong we give such retribution the name *nemesis*. In *Julius Caesar* nemesis follows the leading characters, Brutus and Cassius. Brutus erred in believing that the Roman public desired freedom from dictatorship. That same public turned against him. He refused to include Antony with Caesar for assassination. Antony became the instrument of his destruction. He had sought to do a great right by killing Caesar. He died on the same sword. As for Cassius, he persuaded Brutus to join the conspiracy and deferred to his leadership. It is the fact that Brutus did join the conspiracy that led to those mistakes of policy which brought his downfall. Finally, both of them sought to maintain existing conditions in Rome by striking down Caesar who represented the spirit of the times, but in the end they were crushed by the influence Caesar had left in the world. Thus the dramatist arranges that *nemesis* should follow them, that they should be fittingly punished for their errors.

### Dramatic Tragedy

What is tragedy? (1) Tragedy solves the problems of life as comedy indicates the results of right living and as a farce sums up life's follies. "With Shakespeare", says Coleridge, "tragedy was poetry in the deepest earnest; comedy was mirth in the highest zest, exulting in the removal of all bounds". (2) Dowden says: "Tragedy is concerned with the ruin or restoration of the soul, and of the life of men. In other words its subject is the *struggle of good and evil in the world*". (3) A play is not a tragedy merely because it tells a tale of death or suffering. Its characteristic motive is "the exhibition of man in unsuccessful combat with circumstances". It must appeal to our emotions—to our pity or terror—and at the same time elevate the mind. The life of Brutus is tragic because a life of great promise and possibilities was brought to nothing and not because he died by suicide. It is the ruined life that constitutes the tragedy, and not death. Death is the end of the tragedy.

It is essential for dramatic tragedy that the hero fall from a high place. In other words there is no great interest in the life-fortunes, and death of one of mediocre position in life, or in those of a clod. He must be a man (or woman) who had great possibilities, whose mind is above that of most men, but who has frailties of character which lead him astray or against which he fights a losing battle. Thus Brutus was the soul of honour, loved by high and low, a man who could direct the minds of men. He sought always to do the right: "The elements so mixed

in him that Nature might stand up and say to all the world, "This was a men!" Yet this noble soul had faults. He was impractical, he was blinded to practical circumstances by his ideals. He made errors of judgment which led him to do wrong thinking that he was doing right. His life was misdirected, and it is this misdirection that is the tragedy.

Tragedy can be brought into a man's life by many factors, some of which are at times and in proper measure really virtues. Thus it was ambition which destroyed Macbeth's life. Ambition is a virtue, but an overweening ambition which tramples on the happiness of others is wrong and brings its punishment. In Hamlet there are several tragic elements, but chiefly it is the wrong of harboring a spirit of revenge. In Julius Caesar, Brutus is blinded by his ideals. He is so good himself that he does not question the sincerity of those who play upon his idealism to serve their own selfish purposes.

In all dramatic tragedy there is conflict. This may be a struggle of the hero or heroine against external circumstances which overbear him. Such a struggle is external conflict. If the struggle is within one's own soul, a conflict between evil desires and one's better nature, we call it internal conflict. There are elements of both types of conflict in Julius Caesar. The external conflict appears in that Brutus struggled unsuccessfully against the spirit of the times. Rome had been a republic for more than four hundred years, but misgovernment had brought about conditions which gave opportunity for the use of a strong hand. Such a strong hand, Caesar, resulted in a dictatorship, and the trend was toward imperialism. The very condition Brutus sought to prevent was furthered by the steps he took to prevent it. For in course of time after the death of Caesar young Octavius, taking advantage of the turmoil, became emperor of Rome. The external conflict appears in the disturbance of mind with which Brutus contemplated the assassination of Caesar. From the time Cassius first suggested opposition to Caesar until a month later when he had made up his mind to assassinate him a great struggle went on in Brutus's mind between his love for Caesar, his recognition of Caesar's merits, and his feeling that Caesar must die to save the Roman republic. He had not slept well. "All the interim is like a phantasma or a hideous dream". His attitude toward Portia, formerly so gentle and understanding is now changed. He is petulant, non-confiding, morose. Such is the evidence of the conflict going on in his mind. That conflict never ceased. He was never at peace regarding his action against Caesar. He felt that he had struck "the foremost man of all this world". Though he had struck, as he thought, for justice, still Caesar was to the end "great Julius". It was his disturbed mind too that caused him to see the ghost of Caesar.

There is one more important feature of dramatic tragedy. Tragedy teaches the lesson by showing us what will happen inevitably if we take wrong courses. The drama emphasizes that somehow, somewhere, one is always punished for his wrongs. Retribution hangs over the head of the wrong-doer like the sword of Damocles. The sword will surely fall when trespass is committed. We may not be punished from without, but if not we will be punished from within. Once having done wrong, no restitution or repentance can heal the scars. We have sinned and have been banished from Eden. Henceforth the angel with the flaming sword prevents our return. We can never be as completely whole as we were before. Such is dramatic justice, and is it not a law of life?

### Why is the Play Named Julius Caesar?

Brutus, not Caesar, is the hero of the play. Caesar and his power and aspirations are merely the pivotal points about which the actions of Brutus center. He appears only momentarily in the first half of the play except during the scene preparatory to his going to the senate and at the time of the assassination. He leaves the play entirely, so far as his physical presence is concerned, before the play is half over. It is the fortunes of Brutus we are interested in and it is he with whom we sympathize. Nevertheless the motivating factor of the play is Julius Caesar and his influence. It is his greatness and power, and jealousy of him, that cause all the action. In the first half of the play the action tends toward his assassination. The second half of the play shows the outcome of the struggle between the imperialism of Caesar and the forces opposing him as represented by the conspirators. The true Caesar lives on in the play. His spirit, the influence he had on men, fights and triumphs. Caesar's name and Caesar's spirit never leave the play. His name is mentioned no less than eighty-nine times subsequent to the assassination, and his ghost appears twice—once at Sardis and once at Philippi. Brutus and Cassius both die with Caesar's name on their lips:

Cassius: Caesar, thou art revenged,  
Even with the sword that killed thee".

Brutus: Caesar, now be still.  
I killed not thee with half so good a will".

Let us remember, too, that Caesar is one of the greatest names of history.

### General Questions for Review

1. Give a cast of characters with a sentence or two summarizing the part played by each.
2. Why is the play called *Julius Caesar*?
3. Describe Antony's friendship for Caesar, Brutus's friendship for Caesar, and Cassius's friendship for Brutus.
4. Where do you place the climax of the play? State your reasons clearly.
5. Summarize the closing events of the play as given in Act V, placing emphasis on those events which form the *nemesis* to the principal characters.
6. There are six major mistakes of policy on the part of Brutus. State these and their results as revealed in the play, or their possible results.
7. Discuss Caesar's ambition.
8. What part is played by women in this drama? Discuss their characters and compare or contrast them.
9. "Cassius seems inclined to measure rank by bodily strength rather than by power of mind." Explain and illustrate this statement.

*Note.*—In our final article we will discuss the problems of the play as presented in the characters of the participants. We will append also a list of important excerpts.

# Grade X Written Language

## Formal Correspondence

The achievement of perfection in all forms of written messages is a worthy aim. Friendly letters are intimate messages in which the purpose is to set forth things of interest to the receiver. You should practise this form of letter until you have achieved a clearness and liveliness of form which will cause the reader to remark: "That was an interesting letter". The most used and practical form of correspondence, however, is formal in tone and arrangement. These formal messages are used both in our business and our social relationships. They include all business letters, and such announcements and invitations as have to do with the activities of formal society—betrothals, weddings, receptions, anniversaries, and so on. Advertisements and telegrams are also forms of formal correspondence. Let us observe and practise a few such forms.

*Model 1. Business Letter of Application.*

12 Manfred Street,  
London, Ont.  
February 16, 1936.

The Excelsior Dressmakers,  
78-79 Bolton Street,  
Montreal, P.Q.

Dear Sirs:

I shall appreciate your consideration of the following in answer to your advertisement in *The Toronto Star* this morning for a learner in your establishment:

1. I am seventeen years of age.
2. I am a graduate of an elementary school and I have completed two years in the Technical Collegiate at London, during which time I obtained high standing in Home Economics.
3. I have worked for three months in the Millinery department of the T. Eaton Co., Toronto, at twelve dollars per week.
4. I desire a change because I should like to make dressmaking my life work.
5. I enclose three letters of recommendation: one from the principal of my elementary school; one from the teacher of Home Economics in London Technical Collegiate; and one from the head of the millinery department of the T. Eaton Co., Toronto.

Should you wish an interview, it is possible for me to call on Wednesday or Saturday afternoons between one and six.

Yours very truly,  
(Miss) Alice Telford.

*Note.*

1. The paper should always be of good quality bond, size approximately eight and one-half inches by eleven and one-half inches.
2. The envelope should match the paper in quality and size.
3. Fold the completed letter from bottom to top, from right to left, and from left to right so that it goes into the envelope neatly.
4. Address the envelope clearly, making it appear as pleasing as



possible, and punctuate carefully.

5. Note carefully the parts of the letter.

(a) The address to which the letter is mailed is set at least one and one-half inches from the top of the page, to the right of centre but not so far as to crowd the right-hand edge.

(b) The date line begins directly under the first line of the address from which the letter is mailed.

(c) Each element of the address is followed by a comma, and abbreviations are followed by periods.

(d) The address to which the letter is mailed is placed to give a pleasing appearance to the heading. It may begin level with the bottom line of the address from which the letter is mailed, or, as in the model, one space lower.

(e) Leave a substantial margin at the left side and do not crowd at the right.

(f) The address to which the letter is mailed and the salutation begin directly on the margin.

(g) The first line of the body is indented as in paragraphing. Each paragraph should have an equal indentation.

(h) The body material is concise, clear, and courteous.

(i) Note the formal complimentary close, its capitalization, the comma, and the signature.

### Exercises

1. Obtain proper paper and envelopes and write a letter applying for a position as a stenographer. Mention the enclosure of references and state your qualifications.

2. Write an application for a position as a teacher. State the certificates you hold, the last school in which you taught, and give references.

3. Enclose the above letters in envelopes and properly address them.

*Model 2. Business Letter of Order.*

R.F.D. Route 3,  
Saskatoon, Sask.  
April 4, 1936.

A. G. Spalding & Brothers,  
518 Fifth Avenue,  
New York City.

Dear Sirs:

Please send me the goods listed below. The merchandise is required for immediate use, so I would appreciate your prompt attention. A bank money order for the amount is enclosed.

|  |         |
|--|---------|
| 2 racket presses—Catalogue No. 2R, at \$1.00.....      | \$ 2.00 |
| 3 tennis rackets—Catalogue No. 647, at \$3.50.....     | 10.50   |
| 4 pairs size 5 shoes—Catalogue No. 82B, at \$1.25..... | 5.00    |
| 1 sweater, size 32—Catalogue No. 16E, at \$4.00.....   | 4.00    |

\$21.50

It will be a convenience to me if you will send by parcel post. I am several miles from an express station but rural mail delivery is prompt.

Yours very truly,  
James Foster.

*Note.*—The articles required are tabulated with all necessary information.

### Exercises

1. Write an order to the John Deere Plow Company, Saskatoon, Sask., ordering repair parts for a harvester.
2. Write a letter to the same company explaining a fault in the operation of a new tractor.
3. Enclose the above letters in an envelope and address them properly.
4. Check all the exercises done thus far against the models to correct errors in punctuation, arrangement, etc.

### Model 4. Advertisements.

Advertisements are letters of a sort published in newspapers and other journals. The journal charges for the space at certain specified rates. Therefore as many omissions as possible are made to save space. Nothing should be omitted, however, which will make the message obscure.

#### HELP WANTED—MALE

WANTED, IMMEDIATELY, first class mechanic to take full charge of shop, welding and lathes. Must have own hand tools. Apply to Gordon and Lyons, c/o Box 600, Star-Phoenix.

WANTED—Lumberyard manager. Give full particulars and references. Apply Box 982, Regina Leader-Post.

### Exercises

1. Write advertisements for each of the following:
  - (a) Found—a sum of money.
  - (b) Lost—a fountain pen.
  - (c) A situation as gardener.
  - (d) Clerks wanted.
2. Write answers to the advertisements given above as models.

### Model 5. Telegram.

JOHN DEERE PLOW COMPANY SASKATOON  
 PLOW ORDERED JUNE 6 NOT ARRIVED URGENT GIVE IMMEDIATE ATTENTION

JAMES SMITH LOVERNA

*Note.*—(1) Telegrams are received printed in all capitals. (2) Punctuation can sometimes be omitted if the meaning is clear. This is done because the cost is per word and each punctuation mark counts as a word. (3) Longer messages can be sent at night at a reduced rate. These are known as night letters.

### Exercises

Write telegrams on the following subjects:

- (a) An order for six items of merchandise—Address: Brock and Smith, 90 Yonge St., Toronto.
- (b) Congratulations to your mother on the occasion of a birthday.
- (c) A night letter to a friend telling her you will arrive at her home on a certain day and will spend a few days with her.
- (d) A telegram to some business firm telling the firm that certain articles were omitted from a shipment of goods sent by them to you.

### Social Forms

#### *Model 6. The Invitation, Acceptance, and Regret.*

Mr. and Mrs. Harry Jones request the pleasure of  
Mr. and Mrs. Warren Murray's company at dinner  
on Thursday evening, April sixteen, at eight o'clock.  
492 Johnston Avenue,  
Winnipeg.

---

Mr. and Mrs. Warren Murray regret their inability  
to accept Mr. and Mrs. Jones' kind invitation to  
dinner on Thursday evening.  
506 Smith St.,  
Winnipeg.

---

Mr. and Mrs. Warren Murray accept with pleasure  
the kind invitation of Mr. and Mrs. Harry Jones  
to dinner at eight o'clock Thursday evening.  
506 Smith St.,  
Winnipeg.

---

#### *Note.*

(1) Formal invitations, announcements, and so on, for large functions are printed or engraved on cards or note paper.

(2) The written invitation, announcement, condolence, and so on, may be written on cards or note paper. Wedding invitations and announcements are always on note paper.

### Exercises

1. Write an invitation to a wedding.
2. Write an announcement of an engagement to marry.
3. Write an invitation to a reception to be given in honor of a guest.
4. Write an acceptance of the above invitation.
5. Write a regret at your inability to attend.

#### *Model 7. Some formal cards.*

##### *Acknowledgement.*

Mrs. Albert Fraser  
gratefully acknowledges your kind  
thought and expression  
of sympathy  
76 Tower Street.

Iota Chapter of Phi Kappa Delta  
announce a reception in honor of  
Professor John Dawson.  
All members  
are urged to be present.

At Home  
after May twelfth,  
26 Colony Street,  
Kingston.

*Note.*—The aim in all formal cards, whether printed, engraved, or written, aside from the clearness of material, should be an artistic effect.

**Exercises**

1. Write, for the printer to engrave, cards announcing a club meeting. Arrange the lines artistically.
2. An acknowledgement of expressions of sympathy.

*Model 8. Formal Business Announcement.*

TAYLOR, SMITH AND COMPANY

Retailers  
announce

A Remarkable  
Special Advance Sale to  
Credit Customers

on

Thursday and Friday, January fifth and sixth

Unusual opportunities in the latest imported gowns, cloaks, and suits

*Tea will be served each day from three to six*

**Exercises**

1. A bank president has died. Write the card sent out from the bank's headquarters expressing regret at his death.
2. Write the announcement for the opening of a new lunchroom. Play up special features of the lunchroom service.
3. Write the announcement of the opening of a new store. Announce special bargains to be had on this opening day.

*Note.*—Such business announcements are a form of advertising. When they appear in newspapers or magazines they are known as display advertisements and are frequently accompanied by pictures or illustrations.

**Exercises**

1. Search a magazine for what you consider the best full page display advertisement in the issue. Write a good composition telling the story of the advertisement.
2. Find a description of some summer resort, or city, or country, and write a display advertisement purporting to come from a tourist agency.

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# Science Tests

## Grade IX

1. Answer each of the following questions in a single short sentence:
  - (a) What three types of living organisms are found in the air?
  - (b) How would you get a culture of bread mold for examination in your school laboratory?
  - (c) What useful purposes do molds have?
  - (d) In what way are molds harmful to mankind?
  - (e) What are bacteria?
  - (f) How do yeast plants reproduce?
  - (g) What are two methods by which yeasts, bacteria, and molds may be killed?
  - (h) Name four diseases of mankind which are caused by bacteria.
  - (i) On what do yeast plants feed?
  - (j) What are the products produced by growing yeast plants?
2.
  - (a) Describe a method by which a nutrient solution might be prepared for the growth of bacteria.
  - (b) How might bacteria colonies be started on your culture?
  - (c) What procedure would you follow in order to examine the bacteria colonies produced on your culture?

## Grade X

1. Write an essay on Summerfallow using as an outline the following topics:
  - (a) Reason for summerfallowing.
  - (b) Time to summerfallow.
  - (c) Method of cultivation.
  - (d) Proper way to leave summerfallow surface to prevent soil drifting.
2. You are furnished with some No. 2 Northern Marquis Wheat which you are to use for seed. Describe the manner in which you would handle such wheat from its place of storage in the granary till placed in the drill box. Give reasons for each step in procedure which you describe.
3.
  - (a) Name ten weeds common to farms of Saskatchewan.
  - (b) Classify these as perennial, biennial, or annual.
  - (c) Describe control methods useful to control each of the above classifications of weeds.



# Grade XI Physics

## Refraction of Light

**1.—Phenomena of Refraction of Light.** Many have had the experience of bobbing for apples in a tub of water on Hallowe'en night. Looking into the water the apples do not appear to be far under the surface, but when we push our head down to grasp the apples in our teeth they indeed seem to be a long way under the water. If we push a stick down and touch the apples with it we will find on examining the height to which the water rose on the stick that the apples are deeper than they appear. The reason for this is the refraction or bending of the light rays which takes place at the surface of the water. Figure 1 shows the

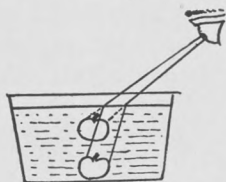


Fig. 1

manner in which this illusive effect is brought about. Many other examples of refraction of light may be quoted. Pupils would be wise to account for the following: (1) The appearance of a straight stick when thrust into a pail of water; (2) The appearance of a line of print when observed through a piece of plate glass as compared with the balance of the line as seen beyond the edge of the glass, etc. As many instances of this type as possible should be observed and recorded.

In the laboratory, or classroom, the phenomena of refraction of light may be observed by use of the optical disc, Figure 2, or with an ordinary glass vessel, Figure 3. (Note the glass vessel used for this experiment is best if it has straight side walls. A square clear bottle with the top broken off would prove very satisfactory.) In case you have an optical disc to perform this demonstration it should be carried out as follows. Allow a beam of sunlight to strike the slit, S, through which a ray passes in such a manner as to strike the surface of the water in the refraction tank at the centre of the disc obliquely. On entering the water the ray of light will be observed to bend toward the normal. The greater the angle of incidence is, i.e., the angle between the incident ray and the normal, the greater will be the angle of refraction (angle between the refracted ray and the normal.) A glass plate may then be substituted for the refraction tank and the effect will be similar, except that the angle of refraction will be different in the case of the glass plate from that in the case of the water.

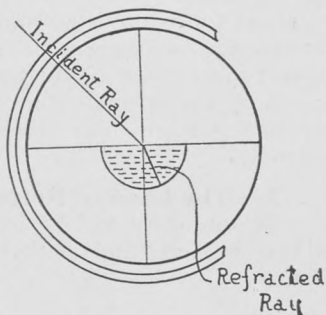


Fig. 2

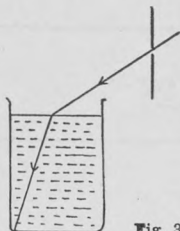


Fig. 3

Similar observations may be made in the case of the glass bottle containing water, Figure 3. In case the path of the light ray cannot be followed in the air above the bottle scatter in some chalk dust or smoke. In order to follow the ray in the liquid place in it a few drops of red ink.

**2.—Explanation of Refraction.** In order to explain the phenomena of light described in the section above let us examine what would take

place if a column of soldiers four abreast were to walk obliquely from a hard parade ground onto a soft plowed field. The pace maintained by the soldiers may be four steps per second. On the parade ground each step will be 36 inches. Thus, the column will advance  $4 \times 36 = 144$  inches per second. On striking the soft plowed field the pace will be maintained but the length of pace will become shorter because of the added difficulty in walking. Thus, after entering the field the length of pace may be 27 inches and the column will advance  $4 \times 27 = 108$  inches per second. Figure 4 shows a diagram of this case and the effect it will have on the line of march.

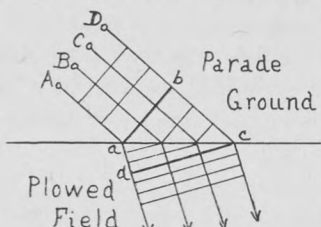


Fig. 4

Figure 4 shows a diagram of this case and the effect it will have on the line of march. Let ABCD be any four men marching abreast in the column with a pace 34 inches long. As A steps from the hard surface of the parade ground to the softer surface of the plowed field his pace becomes only 28 inches long and B to keep abreast of him has to incline to the left. Similarly as B steps from the hard to softer surface, where the progress is more difficult he slows down and C turns slightly to left. A similar thing happens in case of C and D. When all four have entered the field they are still advancing in a straight line four abreast, but, in a *different straight line* and at a *different speed* or velocity.

A similar thing occurs in the case of the light passing from air into the water or glass. Since light is a wave motion, a wave front corresponds to the number of steps per second and the wave length, to the length of each pace. Thus if a beam of light passes from an optical medium (air) into a second optical medium (glass or water) in which its velocity is different, it is said to be refracted or bent. In case the velocity in the second medium is less than that in the first the refraction is toward the normal; while in the case where the velocity in the second medium is more than that in the first the refraction is away from the normal.

**3.—The Laws of Refraction.** If we examine again Figure 4 above we will note the rank of soldiers on the parade ground travel the distance BD in the same time as they travel the distance AC on the plowed field. Thus,

$$\frac{\text{The velocity on the parade ground } BD \ 136 \ 4}{\text{The velocity on the plowed field } AC \ 108 \ 3} = \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$$

In the case of light traveling from air into water a similar ratio holds, that is,

$$\frac{\text{The velocity of light in air}}{\text{The velocity of light in water}} = \frac{4}{3}$$

This ratio is known as the index of refraction. It means that the velocity of light in air is  $\frac{4}{3}$  of the velocity of light in water or conversely the velocity of light in water is  $\frac{3}{4}$  of the velocity of light in air. Thus if we know the velocity of light in air and the index of refraction of light from air to any second medium we may find the velocity of light in the second medium.

The index of refraction may be found by comparing the angle of incidence with the angle of refraction. The manner in which this is done however requires some slight knowledge of trigonometry and may be omitted by a Grade XI student, who should, however, remember the fact that *the index of refraction is the ratio of the velocity of light in air to the velocity of light in a second medium*. This is known as the First Law of Refraction.

The Second Law of Refraction is similar to the second law of reflection, that is, *the incident ray, the refracted ray and the normal to the surface all are in same plane*.

**4.—Total Reflection.** If rays of light travel in the opposite way to that described in the foregoing sections, that is, from the more dense to the less dense optical medium, as for example from water into air, the light ray will be refracted away from the normal. As the angle of incidence is increased the angle of refraction in the less dense optical medium becomes greater and greater until at last it becomes  $90^\circ$ . When this happens the refracted ray just passes along the surface of the more dense optical medium. If now the angle of incidence is still further increased the light ray cannot escape through the surface at all but is totally reflected at the surface. The above statements are illustrated in Figure 5. Light rays originate at the point P, and travel out as PA, PB, PC, PD, PE, and PF. The ray PA striking the surface at right angles passes through unrefracted. Rays PB, PC, and PD are refracted away from the normal as shown. The ray PE is refracted to such an extent that on emerging it just passes along the surface of the water. The ray PF and all rays striking the surface of the water beyond PE cannot escape but are totally reflected down into the water again, obeying the laws of reflected light. It is evident then that all rays of light having an angle of incidence greater than the angle PEG are totally reflected. This angle is called the *Critical Angle*. It may be defined as that angle of incidence, which causes the angle of refraction to become  $90^\circ$ .

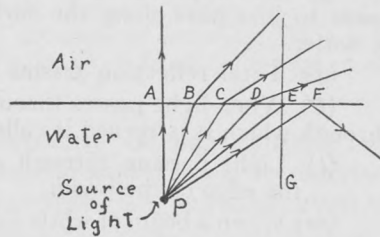


Fig. 5

Total reflection may be observed in the same square bottle as was used in section 1 to illustrate refraction of light. If the bottle is placed close to the edge of the table, and one tries to look from a point below the surface of the water at an object placed just above the water, he will find that for some positions of the eye instead of seeing the object above the water he will observe a reflection of the table top.

From the original experiments of this nature an entire branch of physics and chemistry has been developed called spectroscopy. Spectroscopy is the science of identification and classification of the substances and elements by the type of light they emit when placed in a discharge tube or absorb when placed between a source of white light and a prism.

### 9.—Test.

1. Make a numbered list of words or phrases necessary to complete each of the following statements correctly:

(a) Refraction of light is (1).....

(b) When light passes from a less dense optical medium into a more dense optical medium it is (2)..... the normal.

(c) When light is refracted away from the normal the refracted ray is in the (3)..... medium.

(d) A narrow strip of plate glass was placed lengthways down a page of foolscap. The lines on the page appear (4)..... because of (5).....

(e) A spear thrust directly at a fish in water will pass (6)..... it because (7).....

(f) The refraction which takes place when a beam of light passes from air into water is due to the fact that the velocity of light in water is (8)..... than it is in air.

(g) The index of refraction is found to be (9).....

(h) The second law of refraction is (10).....

(i) The angle of incidence which allows the refracted ray of a light beam to just pass along the surface of the water is called (11)..... of water.

(j) Total reflection prisms are used in (12).....

(k) When light passes through an equilateral glass prism the angle through which it is turned is called (13).....

(l) Light passing through a glass prism is always refracted (14)..... the edge of the prism.

(m) When a beam of white light passes through a prism a (15)..... is formed.

2. The index of refraction of light from air to water is  $\frac{4}{3}$  and from air to crown-glass is  $\frac{3}{2}$ . If the velocity of light in air is 186,000 miles per second what is the velocity of light (1) in water, (2) in crown-glass, and what is the index of refraction of light from water to crown-glass.

### Answers to 1.

(1) the bending of a light ray which takes place as it passes from a medium of one optical density to a second medium of different optical density. (2) towards. (3) less optical dense medium. (4) moved toward top of page. (raised). (5) refraction of light. (6) above the fish. (7) refraction of light. (8) less. (9) velocity of light in first substance/velocity of light in second substance. (10) The incident ray, the refracted ray, and the normal are all in the same plane. (11) critical angle. (12) prism binoculars. (13) angle of deviation. (14) away from. (15) spectrum.

**5.—Applications of Total Reflection.** Total reflection is used in many optical instruments such as prism binoculars, etc., to govern the path of light rays. If we have a glass prism such as shown in Figure 6, light falling on the surface AC at right angles passed into the prism unrefracted. It then strikes the surface AB at an angle greater than the critical angle and is totally reflected from the surface in such a way as to pass out of the prism through the surface BC. In this way the light is turned through a right angle with very little loss of intensity.

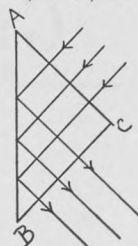


Fig. 6

Total reflection prisms are also used in the lighting of basements. Prisms known as "Luxfer" prisms are fastened into iron frames and set into the pavements around buildings. Sky light entering the prisms is totally reflected at the hypotenusal surface and sent forward into the basement effectively illuminating it.

**6.—Refraction of Light through an Equilateral Prism.** In optics a glass prism such as shown in Figure 7 is used a great deal. The angles at AB and C are generally  $60^\circ$  each. Light travelling along PQ striking the glass surface at Q is refracted on entering the prism as shown. It then travels through the prism as QR and on passing through the surface AC at R is again refracted so as to travel along RS. The total angle through which the light is turned, that is, the angle EDS is called the *angle of deviation*. It is to be noted that the angle of deviation is always away from A the edge of the prism.

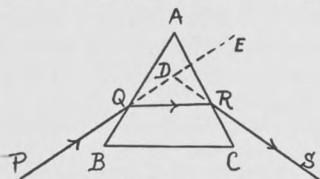


Fig. 7

**8.—The Formation of the Spectrum.** On passing white light from the sun or an incandescent source through a prism as described in the previous section it is broken up in refraction into a band of colored light known as the spectrum. On passing this colored band through a second prism in the opposite way it is recombined to form white light. This is the classical Newtonian experiment and proves conclusively that white light is composed of the various colors.

If the white light allowed to enter the prism is limited to a narrow ray, and if in this ray a lens is placed so as to bring the ray to a focus, and then between the lens and the focus a prism is inserted, a very much purer form of the spectrum may be produced than that described in the previous paragraph. If such a spectrum is made of light from the sun it shows in places across it dark bands. These bands were first discovered by Fraunhofer and are called after him, Fraunhofer's lines. Since their discovery it has been found that these lines are due to the absorption of certain wave lengths of light by substances in the gaseous surface of the sun. By thus identifying substances which absorb certain lines one is able to identify gases which form the external surface of the sun.



# Grade XI Algebra

## SURDS

In an earlier article we dealt with quadratic surds. There we saw that when the exact square root of a number cannot be found, that root is called a quadratic surd. Thus we express the square root of 3 as  $\sqrt{3}$ . Similarly, when the exact cube root of a number cannot be found, we call that root a *cubic* surd. Thus we express the cube root of 12 as  $\sqrt[3]{12}$ . Similarly also, we can have roots of the 4th order, of the 5th order, etc. We also saw that to express a *mixed* quadratic surd as an *entire* surd we squared the factor outside the root sign and multiplied the result by the factor inside, placing the product under a single root sign, thus  $2\sqrt{5} = \sqrt{(4 \times 5)} = \sqrt{20}$ . Similarly,  $3\sqrt[3]{5} = \sqrt[3]{(27 \times 5)} = \sqrt[3]{135}$ , and  $5\sqrt[4]{2} = \sqrt[4]{625 \times 2} = \sqrt[4]{1250}$ . That is, when the surd is cubic, to bring the factor outside under the surd sign we multiply it by itself three times, and when the surd is of the 4th degree or order we multiply it by itself 4 times. To express  $\sqrt[5]{64}$  as a mixed surd we must find a factor of 64 which is the product of a number multiplied by itself 5 times. The number 32 is 2 multiplied by itself 5 times. Therefore, since we are taking the 5th root of 64, to remove the 32 outside we must take the 5th root of it. The 5th root of 32 is 2. Therefore,  $\sqrt[5]{64} = 2\sqrt[5]{2}$ .

Which is greater  $\sqrt[3]{2}$  or  $\sqrt[4]{3}$ ? To determine which quantity is the greater we must reduce these surds to surds of the same order. A common order for the 3rd and 4th roots of a quantity is obtained by taking a common multiple, preferably the lowest of 3 and 4. The lowest common multiple of 3 and 4 is 12. Hence we reduce  $\sqrt[3]{2}$  and  $\sqrt[4]{3}$  to the 12th order. Thus  $\sqrt[3]{2} = 2^{\frac{1}{3}} = 2^{\frac{4}{12}} = \sqrt[12]{2^4} = \sqrt[12]{16}$ , and  $\sqrt[4]{3} = 3^{\frac{1}{4}} = 3^{\frac{3}{12}} = \sqrt[12]{3^3} = \sqrt[12]{27}$ . Here by inspection, since 16 is greater than 27, we see that  $\sqrt[3]{2}$  is greater than  $\sqrt[4]{3}$ .

Now do questions 1-19, pages 309 and 310 of the text.

**Example 1.** Multiply  $\sqrt{x+y} - \sqrt{x-y}$  by  $\sqrt{x+y} + \sqrt{x-y}$ .

$$\begin{aligned} & \sqrt{x+y} - \sqrt{x-y} \\ & \sqrt{x+y} + \sqrt{x-y} \end{aligned}$$

$$(x+y) - (x-y) = x+y - x+y = 2y.$$

Here we note that when we multiply  $-\sqrt{x-y}$  by  $+\sqrt{x-y}$  we get quantity  $-(x-y)$ , that is,  $(x-y)$  in brackets. A common error, here, is to leave the brackets off, in which case the above would work out to the *incorrect* product  $x+y-x-y=0$ .

**Example 2.** Square  $\sqrt{x+y} - \sqrt{x-y}$ .

$$[\sqrt{x+y} - \sqrt{x-y}]^2 = x+y - 2\sqrt{(x^2-y^2)} + x-y.$$

Here a common error is to square  $\sqrt{x+y}$  and  $-\sqrt{x-y}$  and forget to put down the middle term which is equal to twice the product of  $\sqrt{x+y}$  and  $-\sqrt{x-y}$ .

**Example 3.** Simplify  $\frac{7-2\sqrt{5}}{4-\sqrt{5}} - \frac{15+6\sqrt{5}}{2+\sqrt{5}}$

Here we can proceed in two ways. We can find the lowest common multiple of the denominators and subtract the fractions in the ordinary

way rationalizing the denominator of the fraction that results; or we can rationalize the denominator of each fraction before we add them; thus,

$$\begin{aligned}
 & \frac{7-2\sqrt{5}}{4-\sqrt{5}} - \frac{15+6\sqrt{5}}{4+\sqrt{5}} \\
 &= \frac{7-2\sqrt{5}}{4-\sqrt{5}} \times \frac{4+\sqrt{5}}{4+\sqrt{5}} - \frac{15+6\sqrt{5}}{4+\sqrt{5}} \times \frac{2-\sqrt{5}}{2-\sqrt{5}} \\
 &= \frac{4-\sqrt{5}}{28-\sqrt{5}-10} \times \frac{4+\sqrt{5}}{30-3\sqrt{5}-30} \times \frac{2-\sqrt{5}}{2-\sqrt{5}} \\
 &= \frac{16-5}{18-\sqrt{5}} - \frac{3\sqrt{5}}{-1} = \frac{4-5}{18-\sqrt{5}-33\sqrt{5}} = \frac{18-34\sqrt{5}}{11}
 \end{aligned}$$

### Surd Equations

Read carefully the discussion in section 234, page 312 of the text.

When given a surd equation, the student must first get rid of the surds in the equation. An equation may contain as many as four terms which are surds. When the equation contains but one surd, we leave that surd alone on one side of the equation and transpose *all* the other terms to the other side. Then on squaring both sides, the surd quantity disappears. Thus, solve

$$\sqrt{2x-5}-3=0$$

$$\sqrt{2x-5}=3$$

$$\text{Squaring } 2x-5=9$$

$$\therefore 2x=14$$

$$x=7.$$

If the equation contains two terms which are surds, then we can put them both on one side, taking the other terms to the other side, and on squaring both sides one of the surds will disappear. We then proceed as stated above when the equation contains but one surd term. Thus,

$$\text{Solve } \sqrt{x+4}+\sqrt{x+15}=11$$

$$\text{Squaring } x+4+2\sqrt{(x^2+19x+60)}+x+15=121$$

$$\therefore 2\sqrt{(x^2+19x+60)}=102-2x$$

$$\therefore \sqrt{(x^2+19x+60)}=51-x$$

$$\text{Squaring } x^2+19x+60=2601-102x+x^2$$

$$\therefore 121x=2541$$

$$x=21.$$

Sometimes it is simpler to take one of the surds to the other side.

$$\text{Thus } \sqrt{x+4}=11-\sqrt{x+15}$$

$$\therefore x+4=121-22\sqrt{x+15}+x+15$$

$$\therefore 22\sqrt{x+15}=132$$

$$\therefore \sqrt{x+15}=6$$

$$\therefore x+15=36 \quad \therefore x=21.$$

If the equation contains three terms which are surds, then we put two surd terms alone on one side, and we put the other surd term on the other side. Thus,

$$\text{Solve } \sqrt{6x+7}-\sqrt{x+2}=\sqrt{2}\sqrt{x+1}$$

$$\text{Squaring } 6x+7-2\sqrt{(6x^2+19x+14)}+x+2=2x+2$$

$$\therefore 5x+7=2\sqrt{(6x^2+19x+14)}$$

$$\therefore 25x^2+70x+49=4(6x^2+19x+14)$$

$$25x^2+70x+49=24x^2+76x+56$$

$$x^2-6x-7=0$$

$$(x-7)(x+1)=0$$

$$x=7 \text{ or } x=-1.$$

Note that the solution of this equation leads to a quadratic equation. You will also note that  $x$  has two values. As one or both of these values may be extraneous roots, that is, roots which are introduced as a result of squaring, it is well for the student to verify each root. In this case both roots satisfy the equation.

If the equation contains 4 terms which are surds—and this is the greatest number of surds that an equation can contain and be solved—we put two surds on one side and two on the other.

Now do questions on pages 314, 316, and 317 of the text.

### The Square Root of Binomial Surds

If we square  $\sqrt{3} + \sqrt{5}$  we get  $3 + 2\sqrt{15} + 5$  or  $8 + 2\sqrt{15}$ , and if we square  $5 - 6\sqrt{3}$  we get  $25 - 60\sqrt{3} + 108$  or  $133 - 60\sqrt{3}$ . In both cases we see that when we square a binomial surd, that is, an expression of two terms one or both of which is a surd, we get a binomial surd. Thus, we know that the square root of  $8 + 2\sqrt{15}$  is of the form  $\sqrt{x} + \sqrt{y}$  where  $x$  and  $y$  may stand for any positive number, and that the square root of  $133 - 60\sqrt{3}$  is of the form  $\sqrt{x} - \sqrt{y}$ , where  $x$  and  $y$  stand for any positive number. This being so, to find the square root of  $8 + 2\sqrt{15}$  we say: let  $\sqrt{8 + 2\sqrt{15}} = \sqrt{x} + \sqrt{y}$ . We now solve for  $x$  and  $y$ . We note that we have a surd equation, so to get rid of the surds we square.

$$\begin{aligned}\therefore 8 + 2\sqrt{15} &= x + 2\sqrt{xy} + y \dots\dots\dots (1) \\ &= x + y + 2\sqrt{xy}.\end{aligned}$$

Now we note that on one side of the equation we have a *rational* number 8, and an *irrational* or surd number  $2\sqrt{15}$ . On the other side we have the rational quantity  $x + y$ , and the irrational quantity  $2\sqrt{xy}$ . Since a rational quantity cannot equal an irrational quantity, therefore, if there is a condition of equality between the two sides of the above equation then

$$\begin{aligned}x + y &= 8 \text{ and } 2\sqrt{xy} = 2\sqrt{15} \\ \therefore \sqrt{xy} &= \sqrt{15} \text{ and } xy = 15.\end{aligned}$$

Here we see that the numbers whose sum is 8 and product is 15 are 3 and 5. Now we substitute 3 and 5 for  $x$  and  $y$ , respectively, in (1) and we get

$$\sqrt{8 + 2\sqrt{15}} = \sqrt{3} + \sqrt{5}.$$

*Example 1.* Find the square root of  $94 - 42\sqrt{5}$ .

$$\text{Let } \sqrt{94 - 42\sqrt{5}} = \sqrt{x} - \sqrt{y} \dots\dots\dots (1)$$

$$\text{Squaring } 94 - 42\sqrt{5} = x + y - 2\sqrt{xy}$$

$$\therefore x + y = 94 \dots\dots\dots (2)$$

$$\text{and } 2\sqrt{xy} = 42\sqrt{5}$$

$$\therefore 4xy = 8820 \dots\dots\dots (3)$$

$$\text{Square (2) } x^2 + 2xy + y^2 = 8836 \dots\dots\dots (4)$$

$$\text{Subtract (3) from (1) } \therefore x^2 - 2xy + y^2 = 16$$

$$\therefore x - y = 4 \dots\dots\dots (5)$$

Solving (2) and (5) we get

$$2x = 98 \quad \therefore x = 49$$

$$\text{Also } 2y = 90 \quad \therefore y = 45$$

Substituting in (1) we get

$$\begin{aligned}\sqrt{94 - 42\sqrt{5}} &= \sqrt{49} - \sqrt{45} \\ &= 7 - 3\sqrt{5}.\end{aligned}$$

Now do questions on pages 318 and 319 of the text.

# Examination Solutions

## GRADE IX LITERATURE, 1935 (Sask.)

1. For each of *any four* of the following quotations, name the speaker and show that you recall the situation to which the passage refers:
  - (a) Sweet are the uses of adversity,  
Which, like the toad, ugly and venomous,  
Wears yet a precious jewel in his head.
  - (b) Therefore my age is as a lusty winter,  
Frosty, but kindly.
  - (c)                   There is an old poor man,  
Who after me hath many a weary step  
Limp'd in pure love: till he be first sufficed,  
Oppress'd with two weak evils, age and hunger,  
I will not touch a bit.
  - (d) And your experience makes you sad: I had rather have a fool  
to make me merry than experience to make me sad: and to travel  
for it too.
  - (e) Will you sit down with me? and we two will rail against our  
mistress the world and all our misery.

### Answer.

- (a) *Speaker*—Duke Senior (Duke Ferdinand).

*Situation*—These words were spoken on the first occasion upon which we see the exiled Duke among his followers in the Forest of Arden. As the scene opens we see the Duke and his men in a merry mood. The genial Duke is addressing his men on the happiness to be found in nature even amid adverse circumstances.

- (b) *Speaker*—Adam, servant of Orlando.

*Situation*—When about to follow Orlando into exile, Adam calls attention to his strength in old age and the reasons for it. He has lived a temperate life.

- (c) *Speaker*—Orlando.

*Situation*—When Orlando came upon the Duke and his men in the forest about to partake of a meal, the Duke, in spite of Orlando's rude demand invited him kindly to sit and eat. Orlando then tells of the plight of Adam who had been overcome by hunger and weariness.

- (d) *Speaker*—Rosalind.

*Situation*—Rosalind (Ganymede) and Jacques have met for the first time. Jacques has been boasting of his experiences and his melancholy.

- (e) *Speaker*—Jacques.

*Situation*—Just after Celia had reported to Rosalind the presence of Orlando in the forest, the latter appears before them in the company of Jaques. The two seem to be out of sympathy with one another. Jacques, always pleased with cleverness, is pleased

with Orlando's wit, but dislikes his cheerfulness and makes the above unacceptable proposal to Orlando.

2. Account for the fact that the Ancient Mariner told his tale to a certain wedding guest. Using quotations freely, write a vivid description of the voyage from the time "the storm blast came" to the time of the shooting of the albatross.

**Answer.**

The Ancient Mariner, through his suffering had learned a lesson of appreciation of the things God has created. He had the miraculous power of knowing who needed the lesson and who would be forced to listen. Therefore he selected one of the three guests as the one who needed the lesson.

*The Voyage (Outline for Answer)*

- (1) The tempest—the ship helpless in the gale. (Quote).
  - (2) The ship reaches Antarctic regions—the vast fields of ice—its appearance and noises. (Quote).
  - (3) The coming of the albatross.
  - (4) Its importance to the crew—relieved loneliness—their kindness to it.
  - (5) The ship is released from its difficulties by a favorable south wind.
  - (6) The mariner shoots the albatross. (Quote).
3. (a) Name *four* scenes, *four* customs, and *four* characters from *The Lady of the Lake*.
  - (b) Write a detailed account of (1) any scene, and (2) any custom you named in (a).

**Answer.**

- (a) (1) The Trosachs at sunset; Loch Katrine at dawn; the arrival of Roderick at the island; the appearance of Roderick's men on the hillside, etc. (2) The ritual preparation of the fiery cross; the speeding of the cross; the maintenance of minstrels in noble families; highland hospitality; customary games and sports; etc. (3) Ellen Douglas, Roderick Dhu, Allanbane; Malcolm Graeme; etc.
  - (b) *Outline for description of a scene (The Trosachs at Sunset).*
    - (1) The setting sun.
    - (2) Its effects on the mountain peaks.
    - (3) The contrasting shadows in the ravines.
    - (4) The ruggedness of the scene—rocky pyramids—*island-like* masses which form natural fortifications—the fantastic shapes of the rock masses (tower, dome, battlement, cupola, minaret).
    - (5) The beauty of the flowers and shrubs.
    - (6) The flowers and tress of the mountainside—variety of flower colors—gray birch and aspen—ash and oak on the upper slopes—on the peaks, pine trees—over all, the blue sky.
    - (7) General impression—the scenery of a fairy dream.
- Note.*—The question is properly answered by a well-written composition using the details given in the above outline.



Treat any other scene you might choose in like manner. The outline, of course, would not appear on your answer paper.

*Outline for description of a custom*—(The Ritual Preparation of the Fiery Cross).

- (1) The oldest goat of a flock is killed by the chieftain.
- (2) The making of the cross—yew from the burial ground of the clan.
- (3) The curse on those who did not come.
- (4) The kindling of the cross as the curse was uttered and the quenching of the flames in the goat's blood.
- (5) The cross is sent on its way. *N.B.*—See note above.

4. Give the name of the poet, and as briefly as possible state the central thought or theme of each of *any four* of the following poems: *In April*; *After School*; *Dawn*; *In Apple Time*; *St. Yves Poor*.

**Answer.**

*In April*—Ethelwyn Wetherald. The poem expresses the gladness, the freeing of the spirit, that comes with the Spring.

*After School*—Bliss Carman. Life is likened to a school. After the days at school are over there is a joyful reunion with mother. So, too, will it be at the end of life.

*Dawn*—James McCarroll. The poet personified dawn as an angel and so expresses the beauty of its changing colors and brightening glow.

*In Apple Time*—Bliss Carman. This poem expresses the calm beauty of the autumn—the apple-harvest time.

*St. Yves Poor*—Marjorie Pickthall. The theme of this poem is the inner joy that comes from acts of charity. It is a beautiful embodiment of the thought of scriptural passage: "If ye have done it unto the least of these, my brethren, ye have done it unto me."

5. (a) What was it that caused Poor Susan to see the vision of her childhood home? (b) Describe briefly what she saw. (c) Briefly relate an experience, either actual or imaginary, which this poem might bring to your mind.

**Answer.**

(a) The song of a caged thrush brought to Susan a vision of her childhood home.

(b) In the near distance a mountain ascends, its slopes clothed with trees. The streets of the city have become valleys among the mountains through one of which creep early morning mists and through another flows a lovely river. Beneath her, in the valley, she sees the green pastures where she had happily gone to the milking. And there is the tiny cottage which was her home and where love dwelt. She is supremely happy in her vision, but it soon fades and she is back in the world of her sorrows.

(c) The answer to this part will depend on your own experiences or imagination. You should relate, either as fact or fiction, some recollection of a past scene called to mind by an incident.

6. There are waters blown by changing winds to laughter  
And lit by the rich skies, all day. And after,  
Frost, with a gesture, stays the waves that dance  
And wondering loneliness. He leaves a white  
Unbroken glory, a gathered radiance,  
A width, a shining, peace, under the night.

.....

Take up our quarrel with the foe;  
To you from failing hands we throw  
The torch; be yours to hold it high.  
If ye break faith with us who die,  
We shall not sleep, though poppies grow  
In Flanders fields.

- (a) Give an explanation of each of these passages.  
(b) These passages are taken from two poems which are inspired by the Great War. Compare the two poems with respect to their purpose and their effect on you.

### Answer.

- (a) The picture presented is of a lake. In summer the breezes blow over its surface causing it to ripple as if laughing for joy, and the blue sky is reflected back in brightness. Then comes a frost. The waves no longer play on the surface. Instead there is a wide expanse of ice, white, radiant, peaceful under the moon and stars. Its beauty is not lost but changed. So it is with the soldiers who gave themselves in self-sacrifice. They were happy, spirited. Death came. Only the example of their self-sacrifice remains. Their lives have not been destroyed, but rather they have been changed to a new beauty, the "unbroken glory" of their example.

.....

A dying soldier speaks: "We have fought for a principle. We have carried the light of devotion and self-sacrifice to show the path to civilization, and now our work is done. We expect you to carry on the tasks of life in the spirit of self-sacrifice we have shown. If you do not do so, we will have died in vain and our spirits will not be at rest.

- (b) *Comparison.* Both poems are intended to show the self-sacrifice of the soldier who gave up all the joys of youth and accepted death in defence of what he believed to be right. Both poems seek to inspire us in peace to realize their self-sacrifice and to follow the example of these young men; namely, to think less of self and more of the general good of humanity.

*Note.*—The effect on you is an experience which only you can express. Perhaps there are such things as an enlarged view of life, inspiration to work co-operatively with and for your fellows, and so on. Perhaps you were especially delighted with the beauty of metaphor in both poems, the beauty of the suggested scene in the first, and the suggestiveness of the torch in the second. Perhaps you were influenced by the music of the lines. These are effects that you should have experienced.

7. "A covenant  
'Twill be between us;—but, whatever fate  
Befall thee, I shall love thee to the last,  
And bear thy memory with me to the grave."  
(a) What was the covenant?  
(b) By tracing the lives of both Luke and Michael from this point on, show how each fulfilled his part of the covenant. Quote from the poem to illustrate your answer.

**Answer.**

- (a) It was a covenant of their continued love for one another, and that they would work, Luke away and Michael at home, to rid the property of the debt upon it.  
(b) *Outline for answer.* (1) Luke goes away. (2) At first there are good reports. (3) Luke slackens in duty and gives away to evil.  
"And at length,  
He in the dissolute city gave himself  
To evil courses."  
(4) He has to flee for his crimes. (5) Meanwhile Michael continues his work; though heart-broken he is comforted by love:  
"Among the rocks  
He went, and still looked up to sun and cloud,  
And listened to the wind; and, as before,  
Performed all kinds of labour. . . ."  
. . . . .  
"There is a comfort in the strength of love;  
'Twill make a thing endurable which else  
Would overset the brain or break the heart."  
(6) From time to time he added to the sheep-fold, but never completed it. Thus Luke failed to keep his part of the covenant, but Michael kept his part faithfully.

8. Give the poet's vision of the boy in: (a) *Little Bateese*; (b) *The Master of the Scud*.

**Answer.**

- (a) *Outline for answer.* Typical active small boy—getting into mischief and innocently causing trouble to his grandfather who loves him and is proud of him—always hungry, and growing strong through play. His seeming complete innocence while asleep is contrasted with his activity when awake.  
(b) *Outline for answer.* Arnold—a twelve-year old. The picture is of the boy active at his father's vocation—becoming a man by doing his fathers' work and assuming responsibility—learns to handle the vessel—courageous, capable, handles the vessel alone in the storm and on a dangerous coast.  
9. Give quotations from the following poems to make a total of 14 lines: *Dream River*; *A Fairy Tale*; *Sir Galahad*; *Downfall of Wolsley*; *September*.

*Note.*—It is important in the study of literature to commit to memory many short, especially striking passages.

**GRADE X LITERATURE, 1935 (Sask.)**

*Do 1 to 6 inclusive and one other.*

**1. Answer each of the following questions briefly:**

- (a) "How came the lily maid by that good shield of Lancelot?"
- (b) Why did Lancelot go disguised to the tournament at Camelot?
- (c) Who accompanied him and what was this companion's share in the tournament?
- (d) Whose favor did Lancelot wear? What was the favor?
- (e) Where did Lancelot go immediately after the tournament?
- (f) What was Elaine's request as a reward for nursing him to health?
- (g) What was Lancelot's answer to Elaine's request in (f)?
- (h) Why did he leave Astolat without saying farewell to Elaine?
- (i) In one or two sentences describe Elaine's appearance as she floated down to Camelot.
- (j) Give in your own words the message in her letter to Lancelot.

**Answer.**

- (a) He left it with her when he went to joust for the last diamond in the series of diamond jousts. He would be known by his shield, and as he desired to remain unknown, he took Sir Torre's shield which was unblazoned (unmarked with designs or mottos).
- (b) He had told Arthur, as an excuse for remaining behind with the queen, that an old wound prevented him from taking part in the jousts. Then the queen persuaded him that he should go to prevent gossip, and to cover up the lie he had told to Arthur, he went in disguise.
- (c) He was accompanied by Lavaine, younger son of the Lord of Astolat and sister of Elaine. When Lancelot, overwhelmed by numbers and wounded, was thrown from his horse, Lavaine attacked and unhorsed a knight of old repute, and brought his horse to Lancelot, who remounted and gained the victory over his opponents.
- (d) Lancelot wore Elaine's favor in the lists. It was a scarlet sleeve embroidered with pearls.
- (e) Immediately after the tournament Lancelot went, sorely wounded, to the hermit's cave not far from the field of tourney.
- (f) When Lancelot asked Elaine what request she had to make, she asked to be his wife. When he told her that could not be, she asked to follow him as a maid that she might always see him.
- (g) Lancelot refused Elaine's request to be his wife because of his relations with the queen, and her request to follow him because he wished to protect her from lying gossip.
- (h) He left Astolat without saying farewell to Elaine because he thought this discourtesy might break her love for him.
- (i) Elaine lay in her bed on the black decks. Over her hung the silken case with braided blazonings, which she had made for Lancelot's shield; and in her left hand was the letter to Lancelot, and in the right a lily, mark of her purity. The cloth of gold coverlid was drawn to her waist, showing her white clothing and lovely face which gave the impression of one not dead but asleep.

- (j) (Paraphrase) I came here to take my last farewell to you, Sir Lancelot, for you left me without saying farewell. I loved you and because my love had no return I have suffered death. I ask that Lady Guinevere and all other ladies pray for my soul and give me burial. I ask, too, that thou pray for my soul, because of my faith that thou art a peerless knight.
2. (a) Describe briefly and vividly in not more than eight lines the Canadian scene in each of *any two* of the following poems: *The Legend of Qu'Appelle Valley*, *Erie Waters*, *Quebec*, *The Ships of St. John*.
- (b) In one paragraph give the thought content of *any one* of the following poems: *Johnnie Courteau*, *The River*.
- (c) Name the poet who wrote each of the poems in (a) and (b).

**Answer.**

(a) *The Legend of the Qu'Appelle*. It is the time of Indian Summer. Perfect peace prevails over the moonlit expanse of the lake as a young Indian lover paddles his canoe toward his intended bride. Suddenly he hears his name called, and he sits with paddle lifted and listens to hear the call repeated. Again the call comes, a woman's voice. At last he beaches his canoe near the tepee of his loved one only to find her people mourning her death—women wailing and death-fires lighted on the shore.

*Note.*—Treat any other poems you might choose in a similar manner.

- (b) *The River*. In this poem the beauty of the landscape, its calm and peace are contrasted with the restlessness of the ocean to which the river is hurrying. As the river leaves its mountain home it passes beautiful meadows in which quiet cattle are feeding and where graceful elms overhang the stream. It passes through quiet woodlands and mighty forests. It loiters under cool shadows and in deep and restful pools. Over it always hangs the silent sky; all day the sunbeams glitter on its shallows and bars, and at night God stills it with the music of the stars.
- (c) (Names in the order of the titles given). Pauline Johnson, Pauline Johnson, Jean Blewett, Bliss Carman, William Henry Drummond, Frederick George Scott.

3. "Lay now this corner-stone  
As I requested, and hereafter, Luke,  
When thou art gone away, should evil men  
Be thy companions, think of me my son,  
And of this moment; hither turn thy thoughts,  
And God will strengthen thee."

- (a) Of what is this corner-stone the beginning?  
(b) Show that Luke forgot these words of Michael's.  
(c) Name four outstanding qualities of Michael's character. Support your answer by reference or quotations.

**Answer.**

- (a) It is the beginning of a sheep-fold which Michael proposed to build while Luke was away.  
(b) Luke fell among evil companions and gave himself to evil courses. At last he was forced to flee in disgrace beyond the seas. Thus he forgot what his father had said to him.



If one of the funnels were laid on its side three full-sized locomotives could pass through it abreast. The anchor-chains are so huge that a single link measures 2 feet and weighs 150 lbs. The life boats, which can be put in the water in less than 60 seconds, and which are 36 feet long, and will hold 145 people, are powered by Diesel engines.

The boat is fitted out in the most up-to-date furnishings and has every convenience that the mind of man can contrive.

### HITLER'S NEW PEACE PROPOSALS

The German Government's reply to the Locarno Powers, announced April 1, is regarded in British circles as being conciliatory in tone, and in certain respects its contents give rise to the opinion that further effort to find a basis of negotiations should be made.

It starts by rejecting the Four Power Agreement as inconsistent with German freedom and equality of status and reiterating the desire of Germany to co-operate with other peoples provided these fundamental principles are respected. It points out that the Locarno Treaty was not based on equality as it recognized the demilitarization of the Rhineland, and that in any case the Treaty was invalidated by the Franco-Soviet Pact. Germany has no intention of attacking France or Belgium and cannot understand the desire of the French Government for staff conversations, which in the opinion of the German Government are prejudicial to the issue.

There are then enumerated a number of practical proposals, of which the most important are as follows:

The task of settlement to be divided into three periods, namely, a period for calming down and elucidating procedure, a period for negotiating security in Europe, and a later period for discussing supplementary subjects such as disarmament and economic problems.

Germany, France, and Belgium not to reinforce or move their troops in the Rhineland and the vicinity of the frontiers respectively for four months.

An international commission consisting of Britain, Italy, and a neutral to guarantee these undertakings, receive complaints from either side, and investigate any change through their military attaches.

The German proposal for a 25 years' non-aggression pact with France and Belgium guaranteed by Britain and Italy to be discussed at once. This pact to be supplemented by an air convention.

France and Germany mutually to suppress hostile propaganda and to set up at Geneva a joint commission to investigate complaints, and also to hold national plebiscites to ratify their pledge.

Germany to re-enter the League of Nations on the understanding that the question of "colonial equality" and of the separation of the Covenant from the Treaty of Versailles will be settled by friendly negotiation within a reasonable time.

An international court to be constituted with competence to judge on the observance of the new agreement, whose decisions shall be binding.

Wars to be humanized by means of agreements to prohibit: (a) The dropping of gas or poisonous or incendiary bombs; (b) The bombardment of open localities or towns situated more than 12 miles from the battle zone; (c) Construction of heavy tanks and heavy artillery.

Germany to conclude non-aggression pacts also with her south-eastern and north-eastern neighbors. Holland to adhere, if she wishes, to the western agreement.

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